



**In The United States Patent and Trademark Office**

Appn. No. 09/939,865

Filed: August 27, 2001

Applicant: Reuben Hertz

Title: **HANDHELD APPARATUS FOR DELIVERY OF PARTICULATE  
MATTER WITH DIRECTIONAL FLOW CONTROL**

Examiner/GAU: Robert Rose / 3723

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**Affidavit: Commercial Success**

Commissioner of Patents and Trademarks  
Patent and Trademark Office  
United States Department of Commerce  
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SIR:

The following must be provided to meet the requirements of defining commercial success of the subject invention.

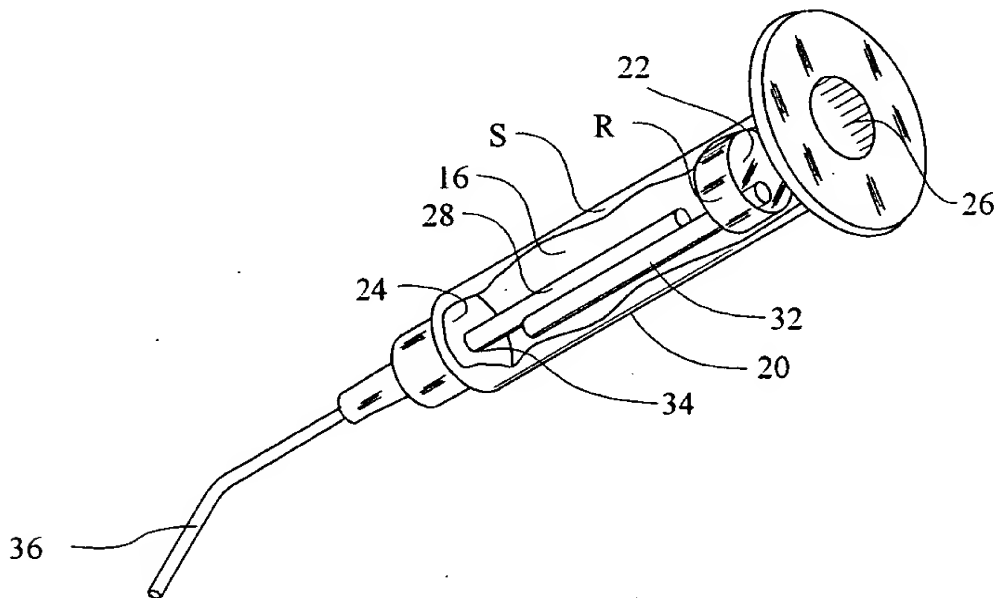
- 1) "In order to assert commercial success, the Applicant bears the burden of proof of establishing a nexus between the claimed invention and commercial success."
- 2) "Commercial success must be commensurate in the scope with the claims."
- 3) "Commercial success must be derived from the claimed invention."
- 4) "Sales figures must be adequately defined."

Applicant believes the following remarks and exhibits support all four items required to support commercial success of the subject invention.

A product referred to as the "Airbrator"<sup>TM</sup> was productized by SMLX Technologies, Inc. (previously Simplex Medical Systems, Inc.). The product resulted from disclosures made by the Applicant to SMLX Technologies under a Confidentiality Agreement executed on August 22, 1995. (See Exhibit A). Applicant respectfully presents the application filing date of the present invention as August 21, 1995; one day prior to the execution of the Confidentiality Agreement.

### Commercial Device Compared Against the Claim Invention

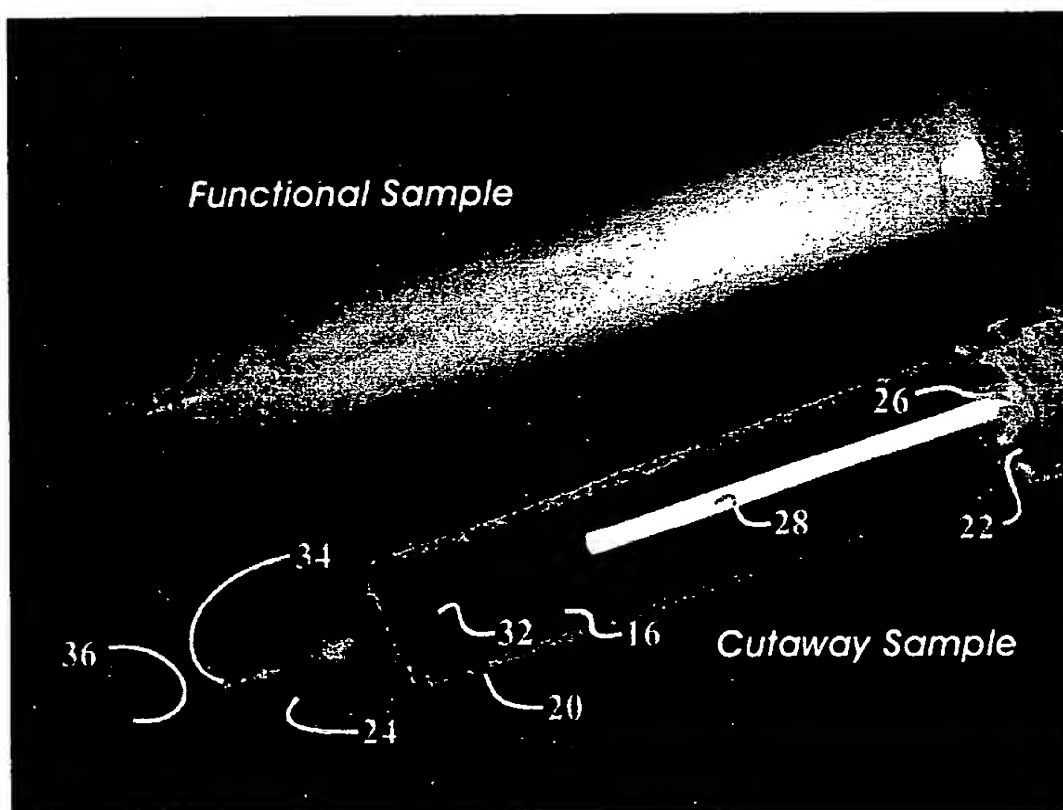
The following is FIG 6 (illustration respective to Independent Claims 1, 10, and 29) of the subject application (modified to identify elements that are shown in other figures) to illustrate the details pertinent to the comparison between the commercially successful apparatus and the claimed invention:



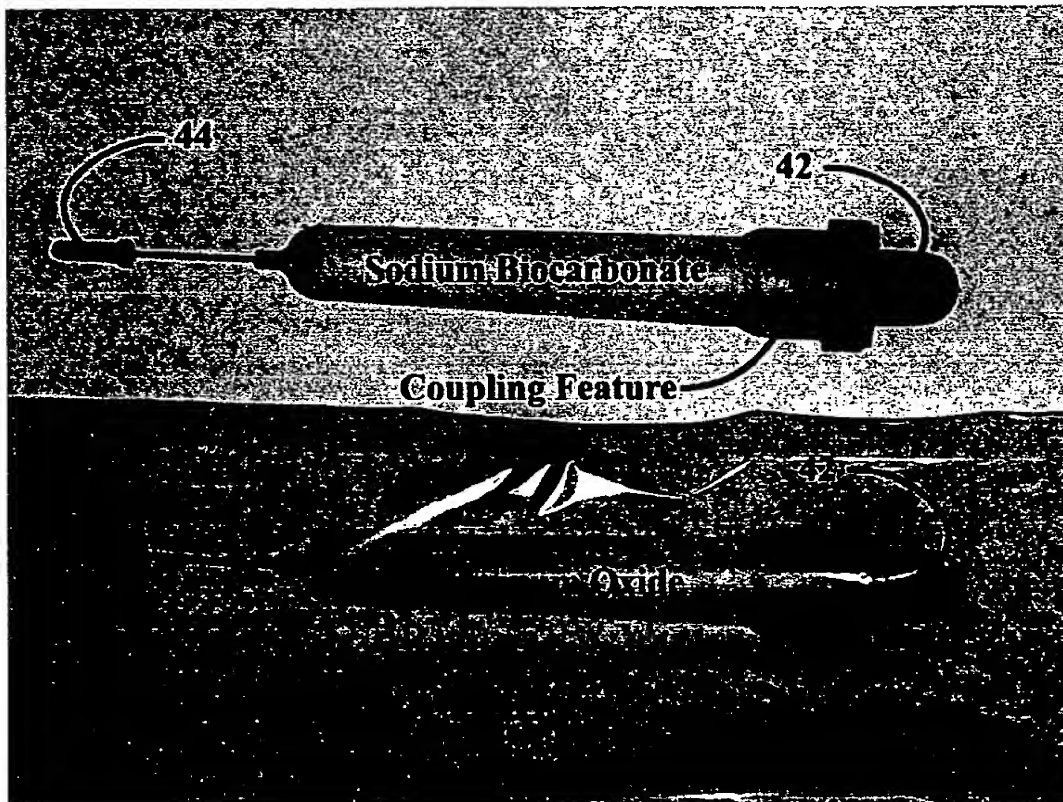
**FIG 6**

- |                         |                              |
|-------------------------|------------------------------|
| 16 – Mixing Chamber     | 32 – Gas Delivery Conduit    |
| 20 – Chamber Wall       | 34 – Mixture Discharge Port  |
| 22 – First End Wall     | 36 – Particle Directing Tube |
| 24 – Second End Wall    | 42 – Inlet Cap (not shown)   |
| 26 – Gas Receiving Port | 44 – Lip Cap (not shown)     |
| 28 – Discharge Conduit  | S – Syringe                  |

The following is a photograph of the commercially successful apparatus (SMLX Airbrator™), identifying the same features as described above.



The following is a photograph of two complete handheld particulate matter examples of the commercially successful apparatus (SMLX Airbrator™). The photo further illustrates the two end caps 42 and 44, the particulate matter, and the use of color to identify the specific material inside respective to depending claims 15, 17, and 18.



The following is a photograph of the label applied to the packaging of the commercially successful apparatus (SMLX Airbrator™) to identify the commercially successful party manufacturing and distributing the commercially successful apparatus as SMLX Technologies, Inc., where SMLX Technologies, Inc. (previously Simplex Medical Systems, Inc.) was taught the present invention by the Applicant under a Confidentiality Agreement (Exhibit A).



**SIMPLEX DISPOSABLE DENTAL AIRBRATOR**

See Package Insert for Instructions

**50 Micron Sodium Bicarbonate, 7.0g**

**For Professional Use Only**

CAUTION: This is a Disposable Device - Discard after Single Patient Use  
Do Not Attempt to Sterilize, Refill or Reuse

CAT No: 100-115      LOT No.: 15080624

**SMLX Technologies, Inc.**

**376 Ansin Blvd., Hallandale, FL 33009**

**Phone (954) 455-0110 FAX (954) 455-9008**

LI-ASB-7998



**Comparison of Claimed Invention and Commercially Successful Apparatus**

1. (as amended “B”) Handheld apparatus for propelling particulate matter, the apparatus **(Commercially successful apparatus shown in photos)**, comprising:

a mixing chamber **(Item 16 shown in photo)** having a sidewall **(Item 20 shown in photo)**, a gas receiving port **(Item 22 shown in photo)** at a first end of the chamber and a discharge end wall **(Item 24 shown in photo)** at an opposite end of the chamber and designed to be handheld;

a gas-delivery conduit **(Item 28 shown in photo)** whereby the gas delivery conduit would be disposed within the chamber and extend into the mixing chamber **(Illustrated in photo)**;

a discharge port **(Item 34 shown in photo)** in the discharge end wall **(Item 24 shown in photo)**;

a discharge conduit **(Item 32 shown in photo)** disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port and whereby the gas delivery conduit and the discharge conduit overlap **(Illustrated in photo)**;

an elongate particle-directing tube **(Item 36 shown in photo)** disposed external the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port. **(Illustrated in photo)**

10. (as amended “B”) Handheld apparatus for propelling particulate matter, the apparatus **(Commercially successful apparatus shown in photos)**, comprising:

a mixing chamber **(Item 16 shown in photo)** having a sidewall **(Item 20 shown in photo)**, a gas receiving port **(Item 22 shown in photo)** at a first end of the chamber and a discharge end wall **(Item 24 shown in photo)** at an opposite end of the chamber, a coupling member for coupling the mixing chamber to a gas supply source tube, and designed to be handheld;

a gas-delivery conduit **(Item 28 shown in photo)** whereby the gas delivery conduit would be disposed within the chamber and extend into the mixing chamber **(Illustrated in photo)**;

a discharge port **(Item 34 shown in photo)** in the discharge end wall **(Item 24 shown in photo)**;

a discharge conduit **(Item 32 shown in photo)** disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port and whereby the gas delivery conduit and the discharge conduit overlap **(Illustrated in photo)**;

an elongate particle-directing tube **(Item 36 shown in photo)** disposed external the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port. **(Illustrated in photo)**

29. (as amended “B”) Handheld apparatus for propelling particulate matter, the apparatus **(Commercially successful apparatus shown in photos)**, comprising:

a mixing chamber **(Item 16 shown in photo)** having a sidewall **(Item 20 shown in photo)**, a gas receiving port **(Item 22 shown in photo)** at a first end of the chamber and a discharge end wall **(Item 24 shown in photo)** at an opposite end of the chamber and designed to be handheld;

a gas-delivery conduit **(Item 28 shown in photo)** whereby the gas delivery conduit would be disposed within the chamber and extend into the mixing chamber **(Illustrated in photo)**;

a discharge port **(Item 34 shown in photo)** in the discharge end wall **(Item 24 shown in photo)**;

a discharge conduit **(Item 32 shown in photo)** disposed within the chamber and extending in fluid communication from the discharge port towards the gas receiving port and whereby the gas delivery conduit and the discharge conduit overlap **(Illustrated in photo)**;

an elongate particle-directing tube **(Item 36 shown in photo)** disposed external the chamber, a proximal end of the particle-directing tube in fluid communication with the discharge port;

particulate matter **(Illustrated in photo)**; and

a means to temporarily containing particulate matter within the mixing chamber.  
**(Illustrated in photo)**



### **Exhibits Presented in Order of Dates**

#### **Exhibit A**

Exhibit A is Schur / Groman / Hertz (Applicant) Confidentiality Agreement dated August 22, 1995 attached herein to identify that an Officer within the company manufacturing the commercially successful apparatus (Airbrator) (SMLX Technologies, Inc., previously Simplex Medical Systems, Inc. and Analyte Diagnostics, Inc.) was under a Confidentiality Agreement and continues to remain under the Confidentiality Agreement. Applicant would like to present to the Examiner the filing date of the Parent application to the subject Application as August 21, 1995, prior to the date of the Confidentiality Agreement.

#### **Exhibit B**

Exhibit B is an excerpt from the Simplex Medial Systems Shareholders meeting, dated September 25, 1996 placing Henry Schur as an officer (VP of Marketing) of Simplex Medial Systems.

#### **Exhibit C**

Exhibit C is a series of correspondences between Hertz (Applicant), Oltman (Representative of Hertz and SMLX until December 6, 1996), Goldenberg, and Simplex Medical Systems. These correspondences support the source of the commercially successful apparatus was initially from disclosure by Hertz (Applicant) to Simplex Medical Systems.

#### **Exhibit D**

Exhibit D is a copy of a brochure pertaining to the “Airbrator” product. The exhibit includes a statement on page 3 “A dentist and friend of an SMLX scientist told him that while abrasion is a great technology for the dental industry, the existing abrasion machines cost thousands...” Exhibits A and B validate the dentist was Dr. Reuben Hertz (Applicant). Exhibits A and B also negate the statement of the brochure (Para 2, page 3) “SMLX personnel invented a disposable dental air abrasion unit ... and would retail for less than \$10.”

Exhibits A, B, C, and D provide evidentiary support the actual source of the commercially successful apparatus is the Applicant of the present invention.

**Exhibits A, B, C and D provide evidentiary support that the Applicant of the present invention is the actual source of the concepts for the commercially successful apparatus.**

#### **Exhibit E**

Exhibit E is a copy of a second, single page brochure pertaining to the “Airbrator” product. The exhibit further supports the handheld aspect of the present invention being the key feature for commercial success.

#### **Exhibit F**

Exhibit F is a correspondence dated January 31, 1997 from Johnson & Johnson to Henry Schur expressing interest and moving the Jet Stream Airbrator Project Forward.

#### **Exhibit G**

Exhibit G is a company press release dated June 04, 1997 which states projected targets of the “First disposable, air abrasive dental handpiece” to be 250,000 units per month within three months of the press release.

**This provides anticipated successful sales volumes demonstrating commercial success of the apparatus.**

#### **Exhibit H**

Exhibit H is an excerpt from the CRA Newsletter, dated January 1999, showing a comparison between various air abrasion products.

**This provides cost analysis between the various air abrasion products. Note the price comparison between the Airbrator (\$8-12) compared to the others (\$2695 and greater).**

#### **Exhibit I**

Exhibit I is a company press release dated June 07, 1999 which states the initial order for the Airbrator to be 300,000 units. The exhibit further includes a copy of a sales brochure from Biostar stating that the product is manufactured by SMLX Technologies. The sales brochure also states that the tip is bendable and that they offer a “Tip Bending Tool”. The brochure further illustrates the color coding – Orange / Red Rapid penetration; Blue – Medium Performance; Green – Light Performance.

**This provides actual sales volumes further demonstrating commercial success of the apparatus.**

#### **Exhibit J**

Exhibit J is a purchase order from SMLX to Usra dated July 12, 1999 for 5.5M Airbrators.

**This large volume provides additional actual sales volumes further demonstrating commercial success of the apparatus.**

**Exhibit K**

Exhibit K is an excerpt from Medical Equipment Designer, March 1999. The article further supports the commercial success of the SMLX Airbrator, more specifically, the dramatic price differential (\$10 compared to beginning around \$1000, with more deluxe models costing upwards of \$20,000).

**The article further demonstrating commercial success of the apparatus illustrating that the product is the first as a low cost solution and disposable.**

**Exhibit L**

Exhibit L is an excerpt from Dentistry Today, July 2002 with a cover depicting the top 100 New Products. The article shows the Edge Dental Airbrator (manufactured by SMLX) to be one of the top 100 products for 2002.

**The article further demonstrating commercial success of the apparatus illustrating that the product as one of the top 100 new products.**

**Exhibit M**

Exhibit M is an excerpt from SMLX Technologies Form 10-QSB form for the quarter ending June 30<sup>th</sup>, 2000. The report states the sales of the Airbrator for the quarter were \$284,000. Exhibit M also includes a Confidential Private Placement Memorandum which includes a statement of Joint Development and Marketing Agreement with KIS Technologies (Owned by Hertz - Applicant) for a disposable handpiece abrasive dispenser used extensively in the dental field.

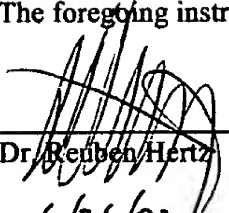
**The exhibit shows both commercial success and the actual source of the present invention.**

**CONCLUSIONS**

Applicant believes the information herein substantiates the following:

- 1) The commercially successful apparatus (the SMLX Airbrator) was conceived by the Applicant of the subject Patent Application. The Applicant (Hertz) taught Simplex Medical Technologies the subject invention.
- 2) The claimed invention as being a handheld apparatus is the primary feature for commercial success. The preamble of every claim, states a handheld device. The primary, distinguishing feature presented in several of the articles and product comparisons is a handheld, disposable apparatus.
- 3) The commercially successful apparatus is claimed in several articles to be the first of its kind, further substantiating (from a third party) the non-obviousness and commercial success of the apparatus.

The foregoing instrument was acknowledged before me on this 26 day of June, 2003

  
\_\_\_\_\_  
Dr. Reuben Hertz

Date

6/26/03

  
\_\_\_\_\_  
Notary

Date

6/26/03



Ursaline M. Parento  
MY COMMISSION # DD183629 EXPIRES  
February 12, 2007  
BONDED THRU TROY FAIR INSURANCE, INC.